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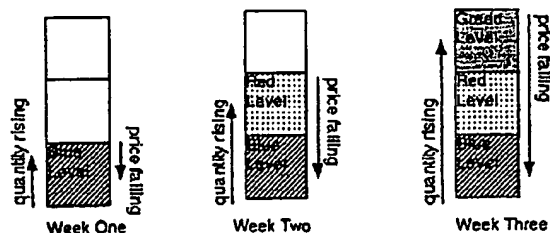


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(54) Title: CORRELATED INDIVIDUAL UNIT SALES PRICE REDUCTION BASED ON CUMULATIVE SALES

QuantityDiscount.com



- Blue Level - minimum quantities, entry level pricing
- Red Level - Increasing quantities, decreasing pricing
- Green Level - additional quantities, further decreasing pricing

Relationship between purchase price and current price reduction.

(57) Abstract

An interactive website on the Internet posts information regarding products and services, each product or service being offered for sale at an initial offering price with at least one lower alternative sales price, which can become the final sales price, being posted. The applicability of the lower price is contingent upon the confirmation of a specified number of prospective sales for that product or service. Confirmed individual purchase orders are cumulatively totalled over time to effect incremental cost reductions for the entire class of purchasers of a given product or service, or for a group of related products or services. Fulfillment of the confirmed purchase orders is preferably affected from inventory held by the product's manufacturer, a regional distributor of the product or a merchant dealing in the product, thereby further reducing the costs associated with each individual sale.

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**Description**

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**CORRELATED INDIVIDUAL UNIT SALES  
PRICE REDUCTION BASED ON CUMULATIVE SALES**

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**Field of the Invention**

This invention relates to the sale of goods and/or services through an interactive website on the Internet.

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**Background of the Invention**

Numerous websites have been established on the Internet for the marketing of a wide variety of products and services. The Internet provides a medium that allows customers, including individual consumers and representatives of small and large entities, to shop conveniently from the home or office, without physically going to a store location. Consumers can shop at any time of the day, have access to a wide variety of products and services, and can purchase items either by browsing or going directly to a specific website for a particular item. Consumers purchasing products over the internet are accustomed to providing credit or debit account information and secure financial systems have been developed to insure the integrity of these financial transactions. The popularity of such on-line shopping is evidenced by the past growth and the future estimates of a significantly larger dollar volume of so-called electronic commerce.

Internet search engines are available to assist prospective purchasers in locating websites where specific products, or types of products are being offered for

5 sale. Manufacturers and distributors of various types of products and services have  
provided detailed descriptions and specifications at websites which they maintain. In  
10 some cases, manufacturers and distributors provide interactive purchase order display  
screens that permit customers to order, confirm the availability of, and pay for  
5 products via the Internet without any direct contact with the seller's personnel.

15 A number of Internet marketers have succeeded by offering purchasers  
standard products, such as books, at a discounted price that is far below discounted  
prices offered at traditional book store outlets. Although the Internet marketer's  
20 lower price is based on an anticipated large volume of sale for a particular product,  
10 the discounted price is fixed and does not vary with actual volume of sales.

25 Although there are obvious benefits to sellers and marketers that employ the  
Internet, including manufacturers, regional, national or even international distributors,  
as well as local merchants, there is no evidence of a general practice of passing along  
30 cost-savings to individual Internet purchasers of the products or services. In fact, it  
15 appears that the general approach to the broad category of mail order shopping, of  
which electronic or e-mail commerce is but a sub-category, has been to offer goods  
35 at what appear to be premium department store prices and to then further enhance the  
cost of the goods to the purchaser by addition of shipping and handling charges which  
40 can average 15%-20%, or more, of the purchase price for individual items. In most  
20 cases, shoppers with access to larger department stores, suburban malls and  
manufacturer's outlet or discount shopping centers, home center stores, and the like  
45 can obtain products of comparable quality at prices less than those paid for mail  
ordered goods. The mail-order catalog fulfillment operation does not incur the costs  
of retail store leasing, fixture purchase and installation charges, sales personnel, cash

5 registers, security, etc.; and can locate its fulfillment/distribution center in relatively  
less costly warehouse space, staffed with less-skilled workers. In addition, the mail-  
10 order business can secure volume discounts from national shippers, and the potential  
avoidance of state and with the avoidance of local sales tax, the cost of getting the  
5 goods into the hands of the purchaser should be less than through the normal retail  
channels of trade.

15 It is also a common practice to provide purchasers with a discount for volume  
purchasing. For example, the purchaser of a container with 250 aspirin tablets pays  
but a tiny fraction of the per tablet cost of a package containing 25 aspirin of the  
20 same brand. Volume discounts are also granted by manufacturers to regional  
10 distributors or to national discount department stores. At present, however, there is  
no means by which a purchaser, whether an individual or a small business, that is  
25 interested in purchasing one or a few units of a specific item can obtain any special  
treatment or secure a discount from the posted purchase price.

30 15 It is therefore a principal object of the invention to provide benefits to  
purchasers that exceed those of the traditional marketplace.

35 It is another object of the invention to provide an interactive Internet website  
operating system that will afford consumers the opportunity to purchase one of a  
variety of products and/or services at a reduced price, or prices, that is based on the  
40 number of independent sales transactions for the specific product or service.

20 Yet another object of the invention is to provide means for managing and  
operating an Internet website that will lease advertising space and time, provide  
45 consumer ordering, billing and acknowledgement services, generate order price

confirmation information and shipping instructions to thereby provide marketers with new opportunities to meet customer needs and generate additional sales.

### Summary of the Invention

The above objects and additional advantages will be achieved by the method and apparatus of the invention for operating a website on the Internet at which one or more products and/or services are offered for sale to consumers at an initial or base price and at one or more prospective lower prices that are correlated to or determined by the total number of sales orders for the specific product or service that are received by the seller. The discount, or reduced selling price, can be based on each individual unit sold during a given time period, or can be reduced incrementally as the number of orders received reach specified numerical levels. In order to meet reasonable consumer requirements or expectations for delivery of the product ordered, in a preferred embodiment, the information for the product will include at least one target date in the future or a time limit by which the final selling price of the product will be confirmed to the buyer.

In a preferred embodiment of the invention, the purchaser is provided with at least one option to extend the period of pendency of the order before shipment for the purpose of prospective entry of additional individual purchase orders that will further reduce the final purchase price for the product of interest. It will be understood that the establishment of a first target date or time for determination of the total number of purchase orders and the correlated final sales price will be dependent upon a number of factors, including the total number of items that can be supplied from inventory or produced by the manufacturer. Alternatively, a first, second and

5 additional target dates can be established at the outset so that predetermined, or  
"firm" shipping dates can be elected by the purchaser.

10 The method of the invention can also be programmed to operate the system  
for the purchase of products at a special daily price if a sufficient number of orders  
5 are received, then the product will be sold at the specified lower price. In the  
practice of the method of this embodiment, the purchase order can be accepted with  
15 the understanding that it will be canceled if the volume of orders is insufficient to  
trigger the reduced final sales price and that the product will be shipped without  
further confirmation and the buyer billed at the end of the day, or other announced  
20 sale time.

25 It will also be understood that experienced manufacturers, distributors and/or  
marketers will have the additional advantage of being able to estimate volume and  
date information that will affect reduction or reductions in the price schedule.  
Although the seller may choose to provide this information relating to unit sales  
30 requirements or volume of sales at the website in connection with the descriptive  
information and sales pricing, the seller may choose not to include this in the screen  
display information. In a preferred embodiment, a graphic display with or without  
35 textual data is provided with the product description.

40 The invention comprehends the establishment of an interactive marketing  
20 website on the Internet and the posting to this website of displays of informational  
fields describing at least one, but preferably a plurality of products and/or services  
that are available for sale. In addition to an appropriate pictorial representation of the  
45 product, written specifications, performance characteristics and the like, there is also  
displayed an initial or current selling price for each product or service. Also posted at the  
50



5 website in association with the product identification information is at least one lower  
alternative price and an associated number of prospective sales of the product that  
must be concluded in order for the initial or current price to be reduced at the next  
10 lower alternative price. Thus, a prospective purchaser or browser who visits the  
5 website is provided with information that establishes a direct correlation between the  
initial or current offering price for the product and the reduction in the price that will  
15 result from the confirmation of a specified number of prospective sales. The  
individual purchaser can therefore obtain the benefit of a specified quantity discount  
20 so long as the indicated number of purchase orders are confirmed in the future.

10 In one preferred embodiment of the invention, a time period is also established  
during which the required number of purchase orders must be confirmed in order to  
25 secure a specified reduction or a lower price. In another preferred embodiment,  
incremental increases in the number of confirmed purchase order results in  
corresponding incremental decreases in the eventual final sales price of the product  
30 or service.

15 Since most prospective purchasers will require that the product be delivered  
35 not later than a specific date in the future, the processing of purchase orders will be  
terminated and fixed as of the date specified.

40 Once the final sales price has been determined, it is entered into a data  
20 processing system and compared to all confirmed purchase orders. Purchase orders  
reflecting a sales price that is greater than the final selling price are sorted, and a  
45 credit for the price difference is transmitted to the purchaser's debit or credit account  
holder. In a preferred embodiment, a final confirmation of sale is also transmitted  
via e-mail, telephone, or facsimile to the purchaser. The final purchase order  
50

5 confirmation list is also transmitted to the fulfillment center, which may be the  
product's manufacturer, a regional or national distributor, wholesaler or local  
10 merchant.

10 In the event that the number of confirmed purchase orders is not sufficient to  
5 effect a reduction in the initial offering price, a notice can be transmitted to the  
purchaser with an option to rescind the purchase order, or to maintain the order for  
15 a further specified period of time. If the purchaser elects to rescind the order, a  
credit notice is transmitted to the purchaser's debit or credit account holder in the  
amount of the purchase price previously billed.  
20

10 The apparatus and method of the invention further comprehend according a  
purchaser of multiple units shipped to the same address a reduction from the pro rata  
25 shipping charges for a single unit to the same address; and according discounts to  
individuals or entities whose names appear on a "membership" list and/or to repeat  
purchasers, i.e., to those who have completed a prescribed number of previous  
30 purchases in a prescribed period of time.  
15

#### 35 Brief Description of the Drawings

The invention will be further described with reference to the attached drawings  
in which: Fig. 1 is a flow chart of a presently preferred embodiment of the method  
40 of the invention; and Figs. 2-5 are schematic illustrations of website screens depicting  
20 several aspects of the invention.  
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## Detailed Description of the Invention

The description of the preferred embodiments which follow will include methods illustrated schematically in the flow chart of Fig. 1.

In the practice of the invention, the website operator or product seller will typically allocate a web page or a portion of a page to a product and will typically include a picture of the product and a description which can be in the form of text, audio and/or visual display. In the case of a product having a substantial technical specification that may be of interest to purchasers, the website can provide a hyper link to another website maintained by the manufacturer and/or distributor as part of a catalog of other products as illustrated in Fig. 1. The product descriptive page can also include information on pricing, such as the manufacturer's suggested retail price and prevailing prices at conventional retail and/or discount shopping outlets. Text and graphic or visual displays indicating the base price, target price, target date and current price can also be provided on the same page or on a separate page with the partially completed order form for the product or service. For example, the webpage can include a visual display such as that depicted in Fig. 2 which depicts a series of bar graphs reflecting time and increasing quantities purchased.

If the order form is on a separate page or is to be called up an appropriate instruction or icon is provided to guide the prospective purchaser, and to assist in completing the purchase order form. In addition to providing any necessary prompts to the buyer in order to correctly complete the purchase order, the buyer will be asked to select a target price and/or a target date for confirmation of the sale and fulfillment, and will also be asked to acknowledge the financial terms of the transaction including any non-refundable deposit, handling charges, service fees, and

5 the like that will be billed to a debit or credit account holder. The purchaser will also  
be prompted to electronically store or print a record of the purchase order as  
completed and authorized for future reference in determining any price reductions,  
10 the status of the order and/or its fulfillment upon receipt of the product or service.

5 The website will preferably include information displays relating to the  
original or base sales price and the current reduced price, if any, based on orders  
15 received. This information is presented in real time so that those who have already  
placed purchase orders as well as prospective buyers can see what price reductions  
20 have occurred since the product was originally entered at the website and offered for  
10 sale. Pricing information can be displayed in any number of graphic forms, including  
bar graphs, pie charts, numerical tabulations, or the like. Target price reductions can  
25 be correlated to display an estimated date upon which the target price will be reached  
based upon the number of units sold; or the estimated final sales price can be  
provided as of the target date, where the sale will conclude on a date certain period.  
30

15 The system can also advantageously be programmed to provide a real time  
graphic display at the website to display the purchase price as it may be reduced by  
35 each confirmed purchase order, or to indicate the rate at which orders are being  
received to achieve the next incremental price reduction. In either of the above, or  
in alternate displays or graphic representations of a dynamic nature, the actual number  
40 of units sold need not be disclosed, should the seller consider that to be sensitive  
20 competitive information.

45 Although it is contemplated that the invention will be practiced by the  
transmission of individual purchase orders directly over the Internet by consumers,  
orders can be placed at stores, either directly by the customer or through the  
50

intermediary of a store clerk, at kiosks, or the like, established for the purpose, or even by telephone. It will be understood that the preferred method of establishing purchase orders will be via direct Internet connection with the consumer's computer terminal, since that mode eliminates the need for additional personnel and display and order entry apparatus.

The method of the invention comprehends and can accommodate a variety of payment and billing systems. In one preferred embodiment, the prospective buyer includes information identifying her credit or debit card account with the purchase order, and a "hold" of the base price or then-current reduced price is entered on the buyer's account. At such time as the final purchase price and order shipment is confirmed, the "hold" amount is replaced with a charge and fund transfer to the seller's account.

In another preferred embodiment, a deposit in a predetermined dollar amount is charged to the buyer's credit or debit account at the time that the purchase order is processed and confirmed. Depending upon the conditions of the sale, all or part of the deposit that has been received can be made non-refundable. Establishing a non-refundable deposit can insure the seriousness of the buyer, and provide an incentive for the buyer to complete the transaction at the target date, as well as covering some or all of the seller or website operator's expenses and the profit margin on incompleting sales.

It will also be understood that payment can be accepted by check, money order, or similar instruments from the purchaser, but that the processing of such "cash" transactions will result in additional overhead charges to the seller and/or website operator. Additional processing fees can be imposed on such transactions to

5 cover the additional costs and to encourage purchasers to pay via credit or debit card  
accounts through which payment can be processed by computers using existing  
technology.

10 Once the purchase order form has been completed by the buyer and the  
5 acceptance of the price and terms confirmed by the buyer, the data is processed in  
accordance with the computer software program and transferred to various prescribed  
15 data storage areas and registries. In one preferred embodiment, the product  
transaction is stored in a register that can be accessed by the website operator and/or  
20 provider of the product on a real time basis so that sales data can be queried and  
10 displayed and/or reported as requested. Alternatively, the computer can be  
programmed to provide periodic electronic or printed reports, e.g., daily, weekly,  
25 etc., so that the product's manufacturer or distributor can timely determine the  
requirements and prescribed manufacturing schedule and/or shipping dates. The  
apparatus and method of the invention thus provides a management tool to assist in  
30 the efficient planning of inventories, manufacturing, and raw material requirements.  
15

35 The fulfillment of product orders is preferably undertaken by the  
manufacturer, a national distributor or a regional warehouse facility by means that  
are, at least in part, determined by the nature of the product and the most efficient  
and/or cost-effective mode of delivery. Existing package delivery services such as  
40 20 the U.S. Postal Service, UPS, etc., provide reliable cost-effective service. These  
shipping charges, as well as any additional packing and handling charges can be  
45 determined at the time of the acceptance of the purchase order, e.g., by calculations  
based on the buyer's postal zip code. The system software identifies all purchasers

5 associated with products having a specified target date for fulfillment and/or a target price.

10 In a further preferred embodiment of the invention, the target date, whether a first, second or subsequent date, is the parameter used to initiate the fulfillment  
5 process.

15 According to the terms of the sale, the entry by the buyer of the purchase order may complete the transaction, with only the final sales price to be determined based on the total volume of sales within the target date. In that form of transaction,  
20 the initial or current sales price at the time the purchase order was entered, has already been held or deducted from the debit or credit account of the buyer, and  
10 where the final sales price is lower, a credit transaction is processed to the buyer's account holder.  
25

30 In one embodiment, the sales transaction is contingent upon the buyer's acceptance of a final sales price, and the system transmits a message via e-mail to the buyer requesting confirmation. Alternatively, a message can be transmitted  
15 electronically to the buyer's facsimile address and/or via mail, requesting confirmation. Upon receipt of confirmation of the order at the final purchase price,  
35 the purchase order is entered on the fulfillment database and appropriate electronic and/or printed instructions are issued to the agency responsible for shipping the  
40 product. An acknowledgement can also be transmitted to the buyer with information of the expected shipping date. If no confirmation is received from the buyer within  
20 a prescribed period of time, the purchase order information is transferred to a canceled file for storage. If the terms of the transaction require a full or partial  
45

5 refund, an appropriate credit notice is transmitted to the buyer's credit or debit  
account holder, and preferably, a notice is also transmitted to the prospective buyer.

10 The method of the invention is based upon the principle that it is less  
expensive to purchase items in larger quantities than it is to purchase them  
5 individually or in smaller orders. In the method of the invention, there is a direct  
correlation between the price of the item and the quantity of items ordered. The  
15 success of bulk discount shopping stores attests to the fact that there is a great  
demand for this type of price discount. The invention is based on the recognition that  
the Internet can serve as a practical means to economically offer a unique service to  
20 the public by means of specially programmed computers that would otherwise be  
impossible to provide. The invention differs from other quantity discount sales  
25 methods because it takes full advantage of the Internet's global commerce  
environment, allowing many people to take part in a unified purchasing transaction  
that simultaneously benefits all parties by reducing the purchase price of the product  
30 or service. Consumer, wholesaler, manufacturer and regional distributors alike all  
stand to profit through the practice of the invention. In the description and examples  
35 that follow, the designation *quantitydiscount.com* will be used to identify a website  
that exists to create a mutually beneficial commercial environment to all purchasers  
in the marketplace based on the principle of quantity discounts.

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#### Determining the Discount

45 The initial offering price, as well as one or more incremental discount prices,  
must be determined for each product or service offered at the website. In some  
cases, the website operator may choose to commit to the purchase of a certain volume  
50



5 of goods with the expectation that they can be sold over a specified period of time at  
one or more incrementally discounted prices. Products in this category could include  
10 photographic film, batteries, small appliances, and the like, which are readily  
available from manufacturers and/or wholesalers in large volume on short notice.

5 Products that are not expendable and/or that are more expensive, such as  
power tools, home appliances, jewelry, watches and more expensive gift items which  
15 can be expected to require a longer period of time for the accumulation of a  
significant number of confirmed purchase orders would preferably be sold in  
20 conjunction with the manufacturer, distributor or wholesaler, which entity can  
10 establish the discount schedule and related sales volume, as well as the time period  
and delivery schedule. The specific information for each product and/or service is  
25 entered into the memory storage device of an appropriately programmed general  
purpose computer of the type conventionally employed to support an Internet website  
30 in order to provide product/service inventory information in response to inquiries  
15 received from a plurality of individual sources via the Internet. The data processing  
software will also include an interactive purchase order display and entry system, a  
35 debit or credit account holder billing system and an accounting system. The  
implementation and use of commercially available systems to support and practice the  
method of the invention is within the skill of a systems and software designer.

20

#### The Marketers' Advantage

45 From a marketing perspective, the use of the method of the invention offers  
a significant opportunity to increase sales. At such an enormous potential for  
discount, there are incentives for buyers to encourage others to order through the

Internet from *quantitydiscount.com* to obtain a lower price price. Creating a website where a buyer can go and be virtually guaranteed a discount will draw on consumers' desires to obtain a lower price, increasing web traffic for those value shoppers, while at the same time maintaining customer loyalty to favorite brands of products and services by offering otherwise unobtainable discount are among the objects achieved by the invention.

The advance placement of orders creates a lead time that allows manufacturers and wholesalers to anticipate sales and to offer their products at a greater discount based on volume. In anticipating orders and having immediate access to the status of sales, marketers have a floating sales forecast. They are able to see information simultaneously with the placement of orders, providing a continuing and ongoing status of sales in process. For example, a graphic display such as that shown in Fig. 3 can be displayed to manufacturers or other suppliers by the website operator. By being able to anticipate sales, the overhead that was previously expended to generate such sales is decreased. Marketers can accumulate orders without having to warehouse the goods for indeterminate time periods, thereby creating more efficient channels of distribution. They also have the advantage of determining their own profit margins. The cost of funds is decreased. There is no "float" money. There is less advertising, fewer personnel, less storage and less waste in the overall practice of the method of the invention as compared to existing purchasing systems.

Having a central location where these businesses can be found, and making this location user-friendly and interactive will attract a high volume of consumers with future purchases in mind. Furthermore, the inclusion of a company's product or service on the website will constitute a continuing advertisement which itself will

5 serve as an incentive for businesses to participate in the system. The invention will  
serve to create a website for electronic commerce that consumers trust as reliable and  
10 reputable, where new information is added, continually updated, and that offers the  
best price and quality service at a discount for a wide variety of products and  
5 services.

15 The apparatus for the practice of the invention includes one or more  
appropriately programmed computers of the type conventionally used for establishing  
an Internet website used for electronic commerce. Appropriate software is  
20 commercially available for transmitting appropriate purchase order forms receiving  
the data entered by the prospective purchaser communicating with the purchaser's  
10 credit or debit account holder and confirming the placement in terms of the order.  
25 Appropriate network servers, magnetic memory devices and processors are also  
commercially available and can be configured to practice the method of the invention  
by one of ordinary skill in the art.  
30

15

### Examples

35 The utility and advantage associated with the invention will be apparent from  
the following examples. A prospective purchaser knows that she is going to purchase  
a compact disc player for a relative as a gift in the near future. Knowing this fact,  
40 the shopper accesses the *qualitydiscount.com* website and locates information  
20 describing the particular CD player of interest. The prospective purchaser initiates  
the ordering process by clicking on an appropriate icon associated with the product  
45 displayed on the screen which calls up a partially completed purchase order form  
upon which the remaining information is entered. The order is paid for using a debit  
50

5 or credit card account number and the buyer is given the option to either provide a date by which the player is to be billed and shipped, or to place a cap on the number of orders to obtain a target discount.

10 From the time the order is placed until the time it is billed and shipped, there will be other shoppers who have also placed orders for the same item. As more  
5 orders are placed, the price of the CD player will be reduced in accordance with a predetermined price reduction schedule. Thus, there is a direct correlation between  
15 the price reduction and orders received and confirmed. Customers are able to check the status of their order via the Internet whenever they choose merely by accessing  
20 the website. As the orders are registered, the data processing system will, when queried, calculate and display the discount, which the shopper can compare to the  
25 original retail or initial offering price, thereby determining then-current savings. In accordance with existing interactive telephone systems, a toll-free number can be provided so that customers can determine current price information in response to,  
30 e.g., entry of a product and/or purchase order identification number.  
15

Another class of goods and services for which the invention will satisfy a very  
35 practical consumer's need is the purchase of seasonal items, such as gas grills, skis, ski resort passes, and the like. Consumers generally know well in advance that they will be buying such seasonal goods and services. Products are offered and orders are  
40 placed early in the year for outdoor gas grills in anticipation of summer barbecues; order periods for winter sports items and services scheduled in advance of winter gift-  
45 giving holidays and vacations. An example of an element of a graphic screen display for use in a sale event for a gas barbecue grill is shown in Fig. 5. A similar display can be adapted for use with other products and/or services posted at the website to  
50

5 rapidly convey information to purchasers. In these instances, purchasers have the  
greatest potential for taking advantage of a volume-based discount on commonly  
10 purchased seasonal items. The same applies for holiday decorations, snow removal  
equipment, leaf blowers, and the like.

5 Another area of interest to a specific class of consumer is that of college  
textbooks, and other standardized educational materials. College texts are typically  
15 expensive and the publication of new editions creates a high turnover, leaving little  
market for used books and few opportunities for discounts. For example, while a  
20 student in New Jersey and a student in California could have a need for a new edition  
10 of a standard physics text, if each student were to go to a bookstore to purchase the  
book on her own, there would be no discount obtainable from the posted retail price.  
25 However, if at the release of the syllabus, a student placed an order on the Internet  
for the upcoming fall classes, all other students ordering the same book through the  
30 discount website practicing the invention will bring the cost of the text down for all  
15 of the book's purchasers.

Some examples of consumer service providers that can benefit from the  
35 practice of the invention are lawn services, landscaping services, chimney sweeping  
services, moving services and routine maintenance services. A customer may  
40 purchase ongoing service packages offered at quantity discounts in a particular area.  
20 If a purchaser is interested in signing up for installation of television cable service,  
that person would sign up for it on the website and obtain a specified discount as the  
45 cable company arranged to make the installation on a particular day or during a time  
period when it would provide the service for all of the subscribers in that  
neighborhood.

5           There is a particular advantage to a business purchaser that can anticipate well  
in advance that an item must be ordered and ready by a specific date. Small  
businesses or companies with otherwise poor purchasing power and tight budgets can  
10       obtain an obvious cost advantage with quantity discounts. For example, the owners  
5       of a popular Italian restaurant forecast their sales into the upcoming fiscal year, and  
determine that they will be selling 10,000 take-out pizzas. Instead of ordering  
15       through a wholesaler, the restaurant purchaser would place its order on the Internet  
along with potentially thousands of other pizzeria owners who are also ordering for  
the upcoming year and generate a discount via their common need and purchase  
20       orders for pizza boxes. Deliveries by the manufacturer is scheduled on a periodic  
basis, e.g., quarterly, with monthly payments being made. The benefit of volume  
25       buying discounts works for all types of business enterprises, and in many instances  
can present smaller companies with an opportunity to "even the playing field" with  
their larger competitors.

30           Other classes of purchasers, such as individual municipalities can obtain price  
15       reductions on orders for standard items, e.g., orange safety cones for new  
construction projects. Stop signs and street lights, concrete and reflective material  
35       can be purchased at a discount when combined with time-based orders from other  
municipalities, permitting smaller governmental agencies or units to obtain savings  
40       that otherwise could not be negotiated with suppliers.

45           Other examples of types or classes of purchasers that can take advantage of  
the method of the invention are hospitals, churches, schools, printers, government  
agencies, nurseries, factories, newspapers, malls, agencies, farms, grocery stores,

5 pharmacies, gas stations, airlines, car dealers, painters, construction firms, beauty  
parlors and book stores/newsstands.

10 In another embodiment of the method and apparatus of invention, the website  
is established to include a registry for suppliers of specialized products or services to  
5 fulfill purchase orders in relatively small cells or geographic regions. This  
embodiment is conveniently illustrated by the following example which also describes  
15 a seasonal product and service that will be of interest in consumers residing in  
predetermined geographical areas. In this example, the product and service is the  
20 delivery of firewood in a specified unit, i.e., a cord of wood. Various types of  
10 wood, e.g., pine, oak, etc., can form subclasses of the product. The economics of  
handling and distribution dictate relatively small geographic areas over which a  
25 particular supplier can provide the service. The Internet operator therefore solicits  
suppliers at its website that will undertake to service a specified area. This  
30 information is entered into a supplier's database, along with minimum pricing and  
15 volume requirements and capabilities.

35 Fireplace wood can be posted to the website at any time in advance of the  
heating season with fulfillment target dates being established in relation to average  
temperatures in particular geographic areas. In the event of wide price variations in  
and among the geographical areas, the market can be subdivided and individual  
40 20 purchase orders processed according to postal zip codes. In this example, large  
volumes of orders that an individual local business might not be in a position to  
45 supply can be satisfied by truckload deliveries of the required product to the local  
distributor based upon advance orders. As will be appreciated by one familiar with

5 this particular type of business, no current basis exists for this level of accuracy in  
determining the quantity requirements for a consumable product such as firewood.

10 It will also be understood from this example that an individual purchase order  
that includes multiple cords of wood delivered to a single address can be accorded a  
5 further discount from the shipping or delivery charges, which will have the effect of  
lowering the overall unit price for each cord of wood.

15 Another example of the practice of the invention which will provide benefits  
and advantages not only to individual purchasers, but to the provider of the product  
and service is the delivery of one or more gifts for a specific holiday occasion that  
20 is chosen from a selection of traditional gifts. Valentine's Day is reported to be the  
single largest occasion for the giving of roses. Because of the perishable nature of  
25 this product, and the fact that buyers want the product delivered on the same day,  
premium prices for the product and the delivery service are the rule. By employing  
the method of the invention, individual orders can be placed well in advance of the  
30 February 14th holiday and nationwide orders received at a single location can be  
continuously sorted and allocated to regional and local flower distributors and delivery  
35 services in order to obtain efficiencies of scale and in the planning of deliveries which  
obviously require considerable coordination. Also, since the final purchase price will  
likely be determined well before the holiday, the final confirmation from the buyer  
40 20 can be obtained and the distribution and delivery schedule can be completed in a  
particularly orderly fashion well before the holiday period. Shown in Fig. 4 is a  
graphic data display used for correlating the incremental price reductions and reduced  
45 prices based upon the quantity of the orders received over time.



5           The method and apparatus of the invention is also especially suited for the sale  
of less expensive consumer items such as batteries and photographic film under the  
terms of a sale transaction that has a very short duration. For example, the sale  
10       period can be one day -- or it can be measured in hours or even minutes -- with  
fulfillment shipments being undertaken during the night or the following day. In  
accordance with a preferred method, the price at the beginning of the day is reduced  
15       incrementally as new purchase orders are received and the reductions in price are  
posted in ten cent, five cent, or even one cent increments. In the sale of products  
having a nominal value, such as batteries, film and the like, no subsequent  
20       confirmation of the order at the final purchase price will be required and all  
information will be held until the end of the day or other shortened buying period,  
25       to determine the final price; thereafter all orders for that day are batch-processed and  
billed to the individual buyer's credit or debit card holder's account.

30           Another preferred embodiment of the apparatus and method of the invention  
15       includes the establishment of a "preferred purchaser" data list in a memory device.  
One form of preferred purchase list is a membership list in which members are  
35       identified either by their names or, preferably, by an identification number such as  
an individual's social security number or a legal entity's federal tax identification  
number or EIN. In the practice of this embodiment, the website can display a  
40       different lower price or percentage of price reduction that will be afforded to  
20       preferred purchasers who are members. Many discount retailers have established  
membership fees and require all purchasers to identify themselves by displaying a  
45       membership card, which membership can only be maintained by payment of an  
annual fee; non-members are not allowed to make purchases. Unlike the existing  
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5 practice in the discount retail store, the method of the invention comprehends the  
acceptance of purchase orders from members and non-members alike, with members  
being afforded a lower price. In the practice of the invention, the purchase order  
10 includes a data entry position relating to membership status, which is verified by  
5 comparing the purchase order data with a membership list maintained in a data  
storage register. If membership is verified successfully, this status is maintained in  
15 the purchase order data file and at the time of confirmation and/or final billing the  
lower member's price is identified for billing.

20 In yet another preferred embodiment of the invention, a database is maintained  
10 of the names and/or identification numbers associated with purchase transactions that  
were completed in a past period of time. When purchaser identification data from a  
25 new purchase order is received by the website server, it is compared to the database  
of prior purchasers during the prescribed past period of time, e.g., twelve months.  
The system is programmed to display a current purchase price to a particular  
30 "preferred purchaser" that may be lower than the then-current general posted  
15 purchase price that appears at the web site, the lower price being based upon the  
number and/or dollar volume of previous completed purchases by the particular  
35 purchaser within the prescribed time period. In the practice of this embodiment, the  
frequent purchaser is provided with an additional incentive in the form of a further  
40 20 discounted price afforded to preferred purchaser. This method can be applied to the  
embodiment where membership status affords the purchaser with a lower current  
45 price, whereby the member who is also a frequent purchaser receives a greater  
reduction in the final price than a non-member or another member who does not meet  
the prescribed requirements of a frequent purchaser.

## Claims

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I claim:

1. A method of offering a product or service for sale over the Internet at a sales price to an individual purchaser of the product or service that is variable in response to total sales of the product or service by all purchasers of that product or service, the method comprising:

a. providing an interactive marketing website on the Internet supported by computer processor means for processing data transmitted by visitors to the website and by data storage means associated with the processor means;

b. entering data in the data storage means that includes descriptive information for one or more products and/or services which data can be displayed as a product informational field;

c. displaying an informational field describing at least one product or service that is available for purchase by visitors to the website;

d. displaying initial current sale price information for the at least one product or service;

e. establishing at least one first alternative price that is lower than the current price and an associated number of prospective sales that must be completed to effect a sale at the first alternative price;

f. displaying the at least one first alternative price and displaying a graphic representation of the associated number of prospective sales of the at least

one product or service that must be concluded in order for the at least one product or service to be sold for the at least one first alternative lower price;

g. recording and processing purchase order data transmitted by visitors to the website that are purchasers of the at least one product or service;

h. processing the purchase order data to maintain a cumulative total of actual sales for each of the at least one product or service;

i. comparing the cumulative total of actual sales of the at least one product or service with the associated number of prospective sales for the at least one product or service; and

j. changing the current price information displayed for the at least one product or service to the first alternative lower price if the number of actual sales equals the associated number of prospective sales.

2. The method of claim 1 which further comprises the steps of:

k. displaying at least one second alternative price that is lower than the first alternative price and displaying a graphic representation of second associated prospective number of sales of the at least one product or service that must be concluded in order for the at least one product or service to be sold at the second alternative lower price.

3. The method of claim 2 which comprises the further steps of:

l. displaying a subsequent alternative price that is lower than the current price and displaying a graphic representation of a subsequent associated number of sales of the at least one product or service that must be concluded in order for the at least one product or service to be sold for the subsequent alternative lower price; and

m. repeating steps h, i and l;

4. The method of claim 1 that comprises the further steps of:

displaying a specified period of time during which the at least one product or service will be offered for sale;

terminating the processing of purchase order data in step h at the end of the specified period of time; and

transmitting to the purchasers confirmation of the purchase orders at a final sales price of the at least one product or service where the final sales price corresponds to the current price displayed at the end of the specified period of time.

5. The method of claim 1 which comprises the further steps of displaying a purchaser order data entry screen to visitors who indicate their status as prospective purchasers.

6. The method of claim 5 where the purchase order data includes data identifying a credit or debit account and account holder of the prospective purchaser and in which the processing of step h further comprises:

transmitting purchaser order data to the prospective purchaser's credit or debit account holder;

receiving and processing account status data received from the prospective purchaser's account holder;

displaying either a purchaser order confirmation screen or a transaction termination screen to the prospective purchaser.

7. The method of claim 6 which further comprises:

transmitting to the prospective purchaser's credit or debit account holder a billing confirmation for all or a portion of the current price for the at least one product or service included in the purchase order data;

transmitting at a later time to the credit or debit account holder an account transaction credit in an amount representing the difference between the current price at the time the purchase order data was processed and the subsequent lower final sales price.

8. The method of claim 1 which further comprises the steps of:

transmitting completed purchase order data to a fulfillment distribution point.

9. The method of claim 8 where the fulfillment distribution point is a manufacturer of the at least one product purchased.

10. The method of claim 8 where the fulfillment distribution point is a regional distributor of the at least one product purchased.

11. The method of claim 4 where the specified period of time is at least one month.

12. The method of claim 11 where the specified period of time is at least three months.

13. The method of claim 4 which comprises the further steps of:

transmitting to the purchaser of the at least one product or service at a final sales price that is the same as the initial current price an optional sales cancellation notice;

receiving, recording and processing data from the purchaser that cancels the purchase order; and

transmitting to the purchaser's debit or credit account holder an account transaction credit in the amount of the initial current price for the at least one product or service in response to receipt of the sales cancellation data from the purchaser.

14. A method of marketing and selling a product or service by way of the Internet where the sales price of the product or service to each purchaser is incrementally reduced from an initial offering price to a lower final offering price in response to the total sales to all purchasers of the product or service, the method comprising:

a. posting a product or service identification informational display at an interactive marketing website on the Internet, where the identification information displayed includes an initial offering sales price, at least one alternative sales price that is less than the initial offering sales price, and a graphic display corresponding to the prospective number of units that must be sold through the website so that all sales will be concluded at the lower at least one alternative sales price;

b. periodically posting to the website an informational graphic display corresponding to the total number of confirmed product orders received for a product or service; and

c. reducing the sales price for all purchasers of the product or service when orders for the prospective number of units are received.

15. The method of claim 14 where the prospective number of units that must be sold is one.



5           16. The method of claim 15 where a plurality of alternative sales prices  
are posted and the incremental differences between the alternative sale prices are  
directly proportional to the number of units sold.

10           17. The method of claim 14 where the product or service identification  
information display includes a purchasing event start time for the receipt of orders  
from prospective purchasers of a product or service and a completion time after  
15 which orders will not be accepted, which method includes the further step of  
displaying on the website the time remaining for the purchasing event in association  
with the product or service.

20           18. The method of claim 14 which comprises:  
providing a dedicated terminal that includes data transmission and  
25 display means, said terminal having direct Internet access to the interactive marketing  
website;

30           receiving a purchase order from a prospective purchaser via the  
dedicated terminal;

processing the purchaser order; and

35           transmitting a purchase order confirmation acceptance notice to the  
prospective purchaser.

40           19. An improved data processing system for administering an interactive  
marketing website on the Internet, where one or more products and/or services are  
offered for sale to purchasers based on identifying informational postings on the  
45 website during a sale event and sale transactions are completed on the basis of  
5           electronic purchase order data transmitted by the purchaser to the website, where the  
system improvement comprises:

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means for posting an initial current sales price for each of the one or more products and/or services offered for sale;

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means for posting at least one alternative sales price that is lower than the initial current sales price for each of the one or more products and/or services offered for sale;

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means for storing data corresponding to a predetermined prospective sales number of each of the one or more products and/or services offered that must be sold to effect a change in the posted initial current sales price to each of the posted at least one alternative sales price;

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means for comparing the number of purchase orders received for each of the one or more products and/or services offered to the predetermined prospective sales number of each of the one or more products and/or services offered;

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means for identifying the lower alternative sales price as the current sales price on the informational posting when the number of purchase orders received corresponds to the predetermined prospective sales number for each of the one or more products and/or services offered.

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20. The data processing system of claim 19 which further comprises:

means for defining a final sale price event for each of the one or more products and/or services offered; and

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means for terminating the processing of purchase order data after the occurrence of the event.

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21. The data processing system of claim 20 where the final sale price event is a predetermined data and time that is after the date and time of the informational

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posting on the website of the identification for each of the respective one or more products and/or services offered for sale.

22. The data processing system of claim 20 where the final sale price event is the receipt of purchase orders for a predetermined number of the product or service.

23. The system of claim 19 which further comprises:  
providing data storage means containing preferred purchaser identification data;

means for comparing purchaser identification data derived from the purchase order received during the sale event with the preferred purchaser identification data to determine whether a match exists;

means for transmitting a price for display to the preferred purchaser that is lower than the currently posted sales price posted at the website when a match exists.

24. The system of claim 23 where the preferred purchaser identification data is a membership list of entities that have paid dues during a prescribed period of time.

25. The system of claim 23 where the preferred purchaser identification data is a list of purchasers who have previously completed sales transactions in a predetermined period of time.

26. The system of claim 23 where the preferred purchaser identification data comprises associated purchase data for each purchaser for a predetermined period of time.

Figure 1  
Flow Chart

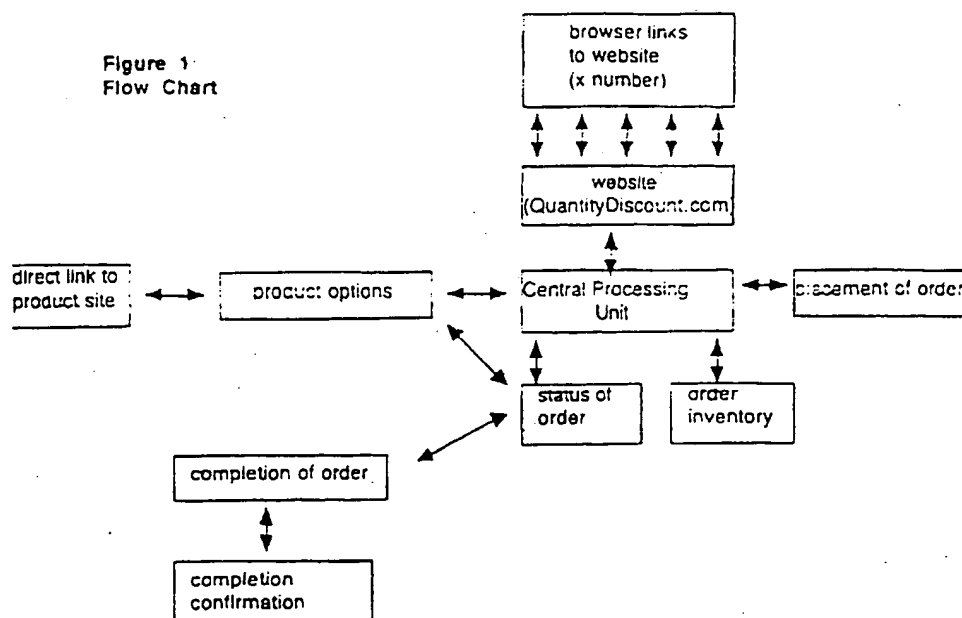


FIG. 1

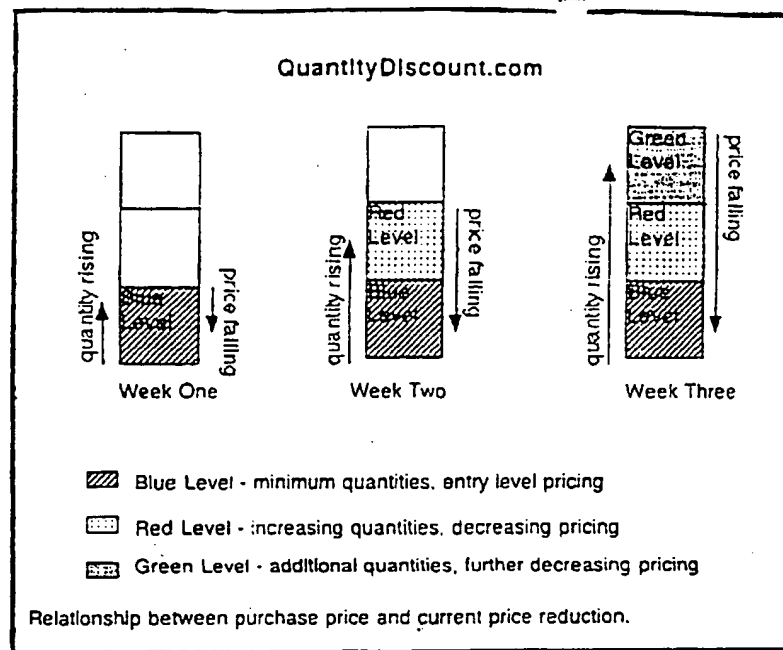
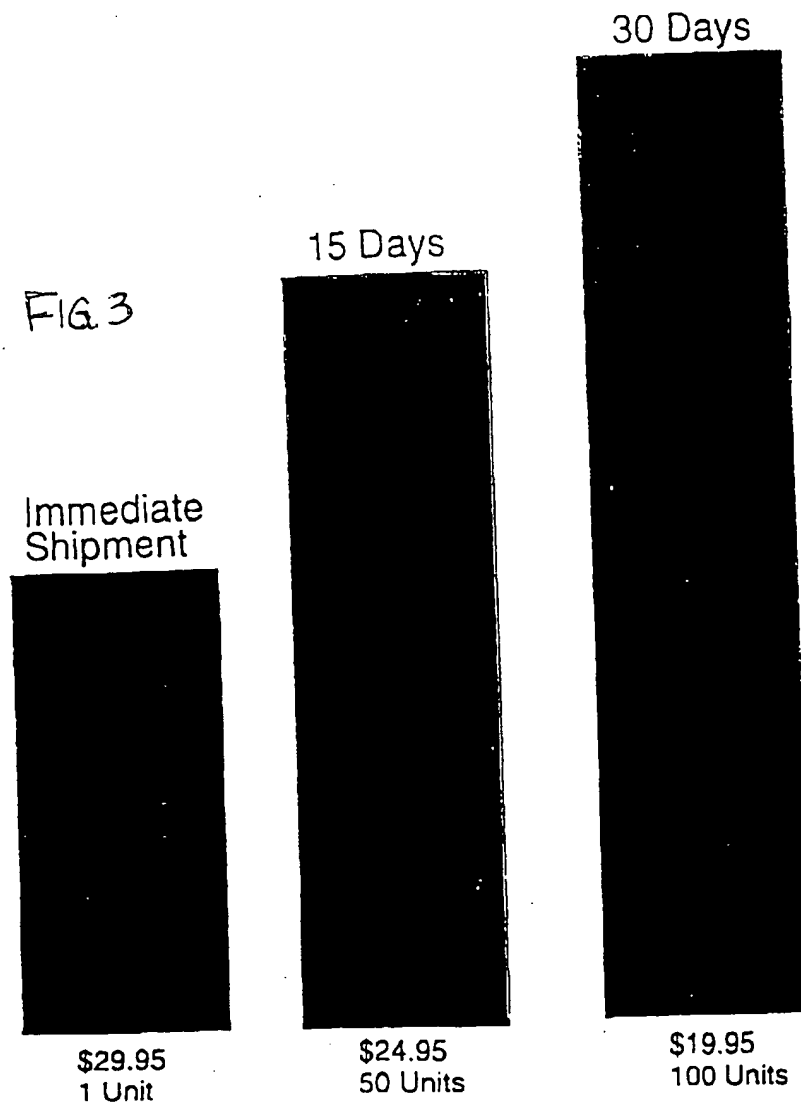


FIG. 2

Quantity Discount. com

FIG 3



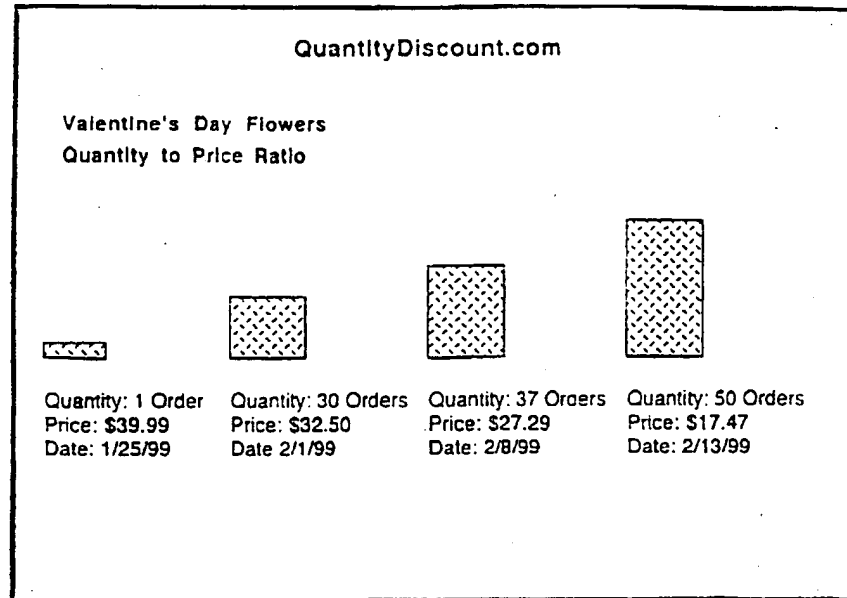


FIG. 4

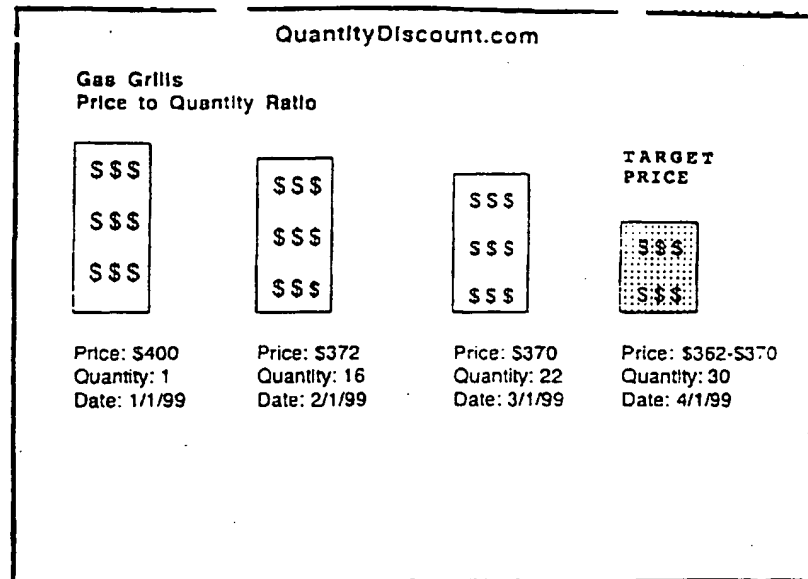


FIG. 5



## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/03421**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : G06F 17/60

US CL : 705/27

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/1,14,26,27,44; 709/224

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN, EAST, DIALOG, DRLINK

search terms: electronic commerce, seller, buyer, referral, electronic shopping, network, Internet

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,794,207 A (WALKER et al.) 11 August 1998, col. 8, lines 28-67; col. 9, lines 1-67, col. 10, lines 18-22; col. 14, lines 30-52; col. 19, lines 61-67; col. 20, lines 1-67	1-26
Y,P	US 5,913,210 A (CALL) 15 June 1999, col. 3, lines 42-58; col. 12, lines 1-27	1-26
Y	US 5,799,284 A (BOURQUIN) 25 August 1998, Abstract; col. 2, lines 60-67; col. 3, line 67; col. 4, lines 1-6	1-26
Y,P	US 5,890,137 A (KOREEDA) 30 March 1999, col. 2, lines 30-56.	1-26
Y	US 5,727,165 A (ORDISH et al.) 10 March 1998, col. 4, lines 63-66	1-26

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*B* earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means	
*P* document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

07 JUNE 2000

Date of mailing of the international search report

11 JUL 2000

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/03421

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Christmas Wishes 1991. Current Catalog. 1991. pg. 1-3 and A	1-26
Y	About ONSALE. ONSALE. 1996. pg. 1-2.	1-26
Y	ONSALE Home. ONSALE. 08 September 1997. pg. 1-4.	1-26
Y	US 5,835,896 A (FISHER et al.) 10 November 1998, fig. 12, [94, 97-98, 155]; fig. 14, [181, 183-185]; col. 2, lines 20-33	1-26